

Title (en)

Axial sealing mechanism for a scroll type compressor.

Title (de)

Axialdichtungseinrichtung für Spiralverdichter.

Title (fr)

Dispositif d'étanchéité axiale pour compresseur à spirales.

Publication

EP 0400951 A1 19901205 (EN)

Application

EP 90305799 A 19900529

Priority

JP 13921789 A 19890602

Abstract (en)

This invention discloses an axial sealing mechanism for axially sealing an orbiting scroll (20) and a fixed scroll (10) of a scroll type compressor. The compressor includes a driving mechanism (54) for driving the orbiting scroll in an orbital motion and a block member (30) fixedly attached to the housing of the scroll compressor to support the driving mechanism. The block member and the fixed scroll define an intermediate chamber (40) in which the orbiting scroll is disposed. The intermediate chamber is divided into a first (41) and second chamber (42) by an end plate (21) of the orbiting scroll. A first conduit (71a, 71b), which is sized to produce a pressure throttling effect, links the second chamber (42) and the discharge chamber of the compressor to increase the pressure in the intermediate chamber. A second conduit (81a, 81b), which also is sized to produce a pressure throttling effect, links the second chamber (42) to the suction chamber (80) of the compressor. During operation of the compressor, the second chamber is maintained at an intermediate pressure without pressure fluctuation due to the pressure of the first and second conduits. This intermediate pressure provides a constant urging force against the orbiting scroll to urge it against the fixed scroll to obtain a good axial seal between both scrolls without decreasing the durability of the driving mechanism and the rotation preventing mechanism.

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CPC (source: EP KR US)

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Citation (search report)

- [AP] EP 0338835 A2 19891025 - SANDEN CORP [JP]
- [A] PATENT ABSTRACTS OF JAPAN vol. 10, no. 83 (M-466)(2140) 02 April 1986, & JP-A-60 224987 (DAIKIN) 09 November 1985,
- [A] PATENT ABSTRACTS OF JAPAN vol. 10, no. 92 (M-468)(2149) 09 April 1986, & JP-A-60 228787 (DAIKIN) 14 November 1985,

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